



DOCKET FILE COPY ORIGINAL

Palmer Wireless, Inc.

12800 University Drive, Suite 500, Fort Myers, Florida 33907-5337
941-433-4350 FAX 941-433-8213

August 1, 1997

Via Federal Express

William F. Caton, Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, DC 20554

Re: Reply Comments of Palmer Wireless, Inc.
In the Matter of Cellular Service and Other Commercial Mobile
Radio Services in the Gulf of Mexico, WT Docket No. 97-112
and Amendment of Part 22 of the Commission's Rules (Unserved Areas),
CC Docket No. 90-6

Dear Mr. Caton:

Palmer Wireless, Inc. hereby files an original and four copies of its Reply Comments in the above-referenced proceeding. Please stamp our file copy with the receive date and return it in the enclosed, postage-paid envelope. Do not hesitate to contact me if you have any questions in this regard.

Sincerely,

Marianne H. LePera
Associate General Counsel

Enclosures

cc: ITS, Inc.
T. Romine
P. Meehan
R. Engelhardt
J. Fredrickson

gmas.cov

024

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

RECEIVED
JUN 3 1997

100-111

| | | |
|--|---|----------------------|
| In the Matter of |) | |
| |) | |
| Cellular Service and Other Commercial Mobile |) | WT Docket No. 97-112 |
| Radio Services in the Gulf of Mexico |) | |
| |) | |
| Amendment of Part 22 of the Commission's |) | CC Docket No. 90-6 |
| Rules to Provide for Filing and Processing |) | |
| of Applications for Unserved Areas in the |) | |
| Cellular Service and to Modify Other |) | |
| Cellular Rules |) | |

To: The Commission

REPLY COMMENTS OF PALMER WIRELESS, INC.

Palmer Wireless, Inc., on behalf of its affiliates, Panama City Cellular Telephone Company, Ltd., the non-wireline cellular licensee in the Panama City, FL MSA, Call Sign KNKA622, Market No. 283A; and FMT, Ltd., the non-wireline cellular licensee in the Ft. Myers, FL MSA, Call Sign KNKA598, Market No. 164A, submits its Reply Comments in the above-captioned proceeding. Palmer's affiliates, Panama City Cellular Telephone Company and FMT, Ltd. are hereinafter individually or collectively referred to as "Palmer."

Generally, Palmer opposes Comments filed by others which are in conflict with the Comments filed June 2, 1997 by Palmer in this proceeding ("Comments of Palmer"). However, Palmer shall limit its instant Reply to three recommendations offered by Petroleum Communications, Inc. ("PetroCom"), in its Comments filed July 2, 1997 ("Comments of PetroCom").

I. Palmer Objects to the Grant of Additional Time to Build Out an "Eastern" Coastal Zone.

Palmer opposes PetroCom's proposal to divide the Coastal Zone into a "Western" and "Eastern" Zone, and to grant PetroCom three additional years to build-out the "Eastern" Coastal Zone. Comments of PetroCom at ¶¶ 9-10. The FCC's plan to create an Exclusive Zone and to permit relocation of CGSA therein without the threat of competing applications¹ provides ample accommodation to address the technical challenges unique to GMSA carriers. GMSA carriers applied for their licenses with full knowledge that their transmitters would not be permitted on land. See NPRM at ¶¶ 7-8. To date, GMSA carriers still have no means to provide service to PetroCom's proposed "Eastern" Coastal Zone, due to the lack of oil platforms, and the like.² In Contrast, land-based licensees, such as Palmer, have long-pending applications to serve portions of PetroCom's proposed "Eastern" Coastal Zone and have the present technical ability to provide the service. Granting PetroCom three additional years to build out its proposed "Eastern" Coastal Zone will yield only one result - the extended delay of vital, life-saving service to the Coastal Zone along the Florida shoreline. This result is squarely in conflict with the public interest. Palmer believes the Commission's Exclusive Zone proposal, as well as this notice and comment proceeding, satisfy the Court's mandate to reconsider the GMSA licensing policy in light of the special needs

¹ Second Further Notice of Proposed Rule Making ("NPRM"), CC Docket No. 90-6, Released April 16, 1997 at ¶ 49.

² The only manner in which GMSA carriers propose to serve Coastal areas is to require land based carriers to allow GMSA transmitters to be placed inside their CGSA's. For reasons explained in Comments of Palmer, this proposal would create havoc upon cellular service in the Coastal Zone, as well as on land areas along the coast.

of GMSA service. Moreover, it fairly protects the legitimate expectations GMSA applicants originally had when applying for their licenses to serve the Gulf of Mexico.

II. Palmer Opposes Application of the Flexible CGSA Determination in the Coastal Zone.

Palmer objects to PetroCom's proposal to apply the "flexible" method of CGSA determination, outlined in the Commission's proposal,³ to coastal areas. Comments of PetroCom at ¶ 11. Contrary to PetroCom's claim, the reasons which support flexible treatment of CGSA are exclusive to the needs of subscribers in the proposed Exclusive Zone. By nature of an "Exclusive" zone, no other carrier will be prejudiced by the relocation of CGSA. Moreover, as indicated by PetroCom itself, the typical subscribers of GMSA services on oil platforms tend to be transient, and it is understood among subscriber and carrier alike that the signal will follow the platforms. See Comments of PetroCom at ¶ 11. As a result, Exclusive Zone subscribers benefit from the follow-me nature of transient transmitters.

Unlike the typical Exclusive Zone subscriber, wireless users passing through coastal areas expect consistency in the location of available signal. For example, having signal available at a favorite fishing reef upon each visit is essential in serving subscriber's public safety needs. See Comments of Palmer at Attachment A, ¶11. Transient CGSA within the Coastal Zone will also routinely, inevitably and negatively impact land-based carriers through repeated interference and frequency coordination conflicts. PetroCom's proposal should be rejected because it will not serve to

³ NPRM at ¶ 49.

accommodate, but instead frustrate and confuse, the typical wireless user within the proposed Coastal Zone.

III. Propagation of Signal in the Coastal Zone Must Take into Account "Usable" Signal, Not Simply Signal Strength.

Discussion to date of the proper propagation formula for signals which cover both land and Gulf waters have been based upon the false premise that signal from land-based transmitters extending over the Gulf at minimum threshold strengths will be "usable." In Comments of Palmer, test results were provided which revealed that, although signal strength may be sustained for greater distances over open water, co-channel interference and reflections off the water increase as hundreds of transmitter points vertically aligned along the coast become equidistant to the receiver in the Gulf. Comments of Palmer at page 6-7. The result is a signal encountering too much interference to be usable. Palmer experienced excessive interference beginning at approximately 20 miles perpendicular to the Ft. Myers, FL shore, although its engineer received sufficient signal strength measurements beyond that point. Id. Excessive interference is expected to be a problem primarily in the Coastal Zone, since traveling farther out into the planned Exclusive Zone will result in complete loss of signals from shoreline transmitters. See Declaration of James E. Fredrickson, Attachment A, hereto ("Declaration") at ¶ 3.

Any hybrid formula which applies more than one propagation model to a single transmitter will be very difficult to administer. Id. at 4. PetroCom suggests that all land-based transmitters within 35 miles of the GMSA Coast Line be analyzed using the

water-based formula. Only the radials which do not extend over water would be re-calculated using the 32 dBu model. PetroCom then suggests that land-based carriers who believed that terrain factors limited actual coverage would then file engineering proposals to demonstrate lesser coverage. Comments of PetroCom at ¶ 13.

PetroCom's proposal illustrates the proverbial "exception swallowing the rule."

Recalculation of certain radials under the 32 dBu model is a smoke-screen, since the proposal uses the water-based formula for initial evaluation for all land-based cells within 35 miles of the shore. Declaration at ¶ 5. The proposal is grossly over-inclusive and seeks to revamp the many land-based transmitters, rather than allow an accommodation for the few water-based transmitters.

The Commission's original proposal to apply water-based formula to GMSA licensees and the 32 dBu model for land-based licensees comes much closer to being rational. However, Palmer recommends that the appropriate formula be determined by the nature of the transmitter site, and not its licensee. It is true that the propagation characteristics of a transmitter are most affected by the terrain factors nearest the point of transmission. Id. at ¶ 7. The most pronounced example of this is the impact the transmission structure itself (e.g., the tower) has on the signal. The Commission recognizes this fact, and even solicits information on its application forms regarding whether the antenna is side-mounted or top mounted. See FCC Form 600, Schedule F. An object so close to the point of transmission has a great impact upon propagation. If we apply this universally-accepted concept to the matter at hand, it would follow that terrain features nearest the point of transmission will most impact the propagation of

the signal. Declaration at ¶¶ 6-7. The answer, therefore, is to apply the land-based model to transmitters located on land, and the water-based model to transmitters situated on water. Doing so recognizes that land-based signals will experience attenuation due to pervasive concrete condominiums, and thick foliage on barrier islands which serve to limit propagation. Id. at ¶7. It also affords appropriate recognition to and the interference problems which create unusable signals in the Gulf. Adoption of PetroCom's or even the Commission's proposed hybrid propagation formula will surely overestimate true service areas, and therefore should be rejected.

IV. Conclusion.

For the reasons stated herein, Palmer opposes the proposals of PetroCom for (i) additional build-out time in a newly created "Eastern" Coastal Zone; (ii) application of flexible CGSA in the Coastal Zone; and (iii) use of any hybrid formula for propagation of signal over water.

Respectfully Submitted,

PALMER WIRELESS, INC.

By: _____



Marianne H. LePera
Associate General Counsel
Palmer Wireless, Inc.
12800 University Drive, Suite 500
Ft. Myers, FL 33907
(941) 433-8208

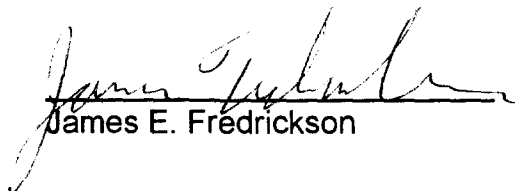
August 1, 1997

ATTACHMENT A
DECLARATION OF JAMES E. FREDRICKSON

I, James E. Fredrickson, declare under penalty of perjury, that the following is true and correct to the best of my knowledge:

1. I am the Vice President - Engineering of Palmer Wireless, Inc. ("Palmer"). In this capacity, I oversee and direct the design, construction and maintenance of all RF facilities within Palmer's cellular markets. I have been employed by Palmer in varied RF technical capacities for 24 years.
2. As described in the Declaration of Brian Thacker, included in Palmer's Comments filed June 2, 1997, I directed the completion of a test to measure signal strength into the Gulf of Mexico off the coast of Ft. Myers, FL. The test results revealed surprising data regarding the amount of co-channel interference and reflections off the water encountered in the Gulf of Mexico resulting from many transmission points along the shore. As a result, it is clear to me that application of the water-based propagation model will significantly overestimate the "usable" signal reaching into the Gulf of Mexico from transmitter points based on land. Although the signal strength may be sustained in greater distances as compared to land, we found that interference cuts off the ability to use even relatively strong signals.
3. I would not expect excessive interference to be encountered in most portions of the proposed "Exclusive Zone", since traveling farther out into the planned Exclusive Zone will result in complete loss of signals from shoreline transmitters.
4. Any hybrid formula which applies more than one propagation model to a single transmitter will be very difficult to administer.
5. Under PetroCom's proposed hybrid formula, recalculation of radials under the 32 dBu model will overestimate actual coverage, since the proposal uses the water-based formula for initial evaluation for all land-based cells within 35 miles of the shore.
6. I recommend that the appropriate formula be determined by the nature of the transmitter site. Propagation characteristics of a signal are most affected by the terrain factors nearest the point of transmission. The most pronounced example of this is the impact the transmission structure itself (e.g., the tower) has on the signal -- whether the antennas are side or top mounted has a significant impact upon the signal.
7. Similarly, terrain features nearest the point of transmission most impact propagation. Land-based signals near the shore experience attenuation due to the concrete condominiums which line the beaches, and thick foliage on barrier islands.

August 1, 1997


James E. Fredrickson